

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A computer adapted to produce a telecommunication signal frame, said apparatus comprising:

a processor, and a memory including software instruction adapted to enable the apparatus to perform the step of:

producing a transmission frame having a first, a second, and a third byte, A
~~telecommunication-signal frame comprising:~~

wherein the transmission frame comprises:

a section overhead with a Regeneration Section OverHead (RSOH) and a Multiplex Section OverHead (MSOH), in which said MSOH comprises a third byte comprising at least one Source Node IDentification Extension bit, at least one Destination Node IDentification Extension bit and at least one bit indicating a change of the information in at least one of a first, a second and a third byte; and

said RSOH comprising a first byte and a second byte, said first byte comprising bits identifying the destination node and said second byte comprising bits identifying the source node, ~~and wherein said MSOH comprises a third byte comprising at least one Source Node IDentification Extension bit, at least one Destination Node IDentification Extension bit and at least one bit indicating a change of the information in said at least one of said first, second and third byte.~~

2. (Currently Amended) ~~A frame~~ The computer according to claim 1, wherein said Source Node Identification Extension bits and said Destination Node Identification Extension, each comprise two bits and four bits are allocated to indicate said information change.

3. (Currently Amended) ~~A frame~~ The computer according to claim 1, wherein both said Source Node Identification Extension bits and said Destination Node Identification Extension bits are three bits and said bits indicating an information change are two bits.

4. (Currently Amended) ~~A frame~~ The computer according to claim 2, wherein said Source Node Identification Extension bits are fifth and sixth bits of the third byte, said Destination Node Identification Extension bits are subsequent two bits and said bits indicating an information change are first four ones.

5. (Currently Amended) ~~A frame~~ The computer according to claim 3, wherein said Source Node Identification Extension bits are third, fourth and fifth bits of the third byte, said Destination Node Identification Extension bits are subsequent three bits and said bits indicating an information change are first two bits.

6. (Currently Amended) ~~A frame~~ The computer according to claim 1, wherein the third byte is located at 9th row, 9th column of first STM-1 of the frame.

7. (Currently Amended) A transmitter adapted to transmit information carried by a telecommunication signal frame, comprising:

a processor, and

a memory including software instruction adapted to enable the transmitter to perform the steps of:

producing a transmission frame having ~~A method for optimizing the time management of the information carried by a first byte, and a second byte, and a third byte, in which -of a Multiplex Section OverHead (MSOH) of a Section Overhead (SOH) of a telecommunication signal frame and for increasing a number of nodes in a telecommunications optical ring, comprising: arranging bits of a~~ the third byte of the MDOH are arranged in such a way that at least one of said bits represents an Extension of Source Node IDentification and at least one of said bits represents an Extension of Destination node IDentification and at least one of the remaining bits indicates an information change in said at least one of said first, second and third byte; and

transmitting the produced frame.

8. (Currently Amended) ~~The method~~ transmitter according to claim 7, wherein both said Source Node IDentification Extension bits and said Destination Node IDentification Extension bits are two in number and said bits indicating an information change are four in number.

9. (Currently Amended) The transmitter method according to claim 7, wherein both said Source Node IDentification Extension bits and said Destination Node IDentification Extension bits are three in number and said bits indicating an information change are two in number.

10. (Currently Amended) The ~~method~~ transmitter according to claim 7, wherein in transmitting the frame, the first and the second bytes are sent first and finally the third byte is sent.

11. (Currently Amended) The transmitter method according to claim 7, wherein in receiving the frame, the first and second bytes are read if at least one but preferably all bits indicating an information change of the third byte are changed and as a result an interrupt is generated.

12. (Currently Amended) The transmitter method according to claim 11, wherein the Destination Node IDentification is calculated with the following algorithm:

$$IDDN_{K1+K0} = IDDN_{K1} + 16 \cdot IDNE_{K0}$$

where: $IDDN_{K1+K0}$ = binary number “extended” IDentification of the Destination Node (calculated by using the bits of the first and third byte); $IDDN_{K1}$ = binary number IDentification of the Destination Node; $IDNE_{K0}$ = binary number Extension of the Destination Node IDentification.

13. (Currently Amended) The transmitter method according to claim 11, wherein the Source Node IDentification is calculated with the following algorithm:

$$IDSN_{K2+K0} = IDSN_{K2} + 16 \quad IDSNE_{K0}$$

Where: $IDSN_{K2+K0}$ = binary number Extended IDentification of the Source Node
(calculated by using the bits of the second byte and the third byte) $IDSN_{K2}$ = binary number
IDentification of the Source Node; $IDSNE_{K0}$ = binary number Extension of the Source Node
IDentification.

14. (Currently Amended) A computer program running on the transmitter comprising means for implementing the algorithm set forth in claim 12 or 13.

15. (Currently Amended) A computer readable medium ~~means~~ having a computer program recorded thereon, said computer readable medium comprising means for implementing the algorithm indicated in claim 12.

16. (Previously Presented) A data transmission apparatus adapted to produce a transmission frame, said apparatus comprising:

a processor, and a memory including software instruction adapted to enable the apparatus to perform the step of:

producing a transmission frame with a first, second and third byte,

wherein a third byte is used by the processor to manage in an optimized manner,
information contained in a first and a second byte of the frame, and

wherein said third byte comprises at least one Source Node Identification Extension bit,
at least one Destination Node Identification Extension bit and at least one bit indicating a change
of information in said at least one of said first, second and third byte.

17. (Currently Amended) A method of communicating between stations using a
~~transmission frame~~, comprising:

~~producing creating said a~~ transmission frame ~~to comprise having~~ a section overhead with
a Regeneration Section OverHead (RSOH) and a Multiplex Section OverHead (MSOH); and
transmitting said created transmission frame from a first station to a second station,

wherein said RSOH comprising a first byte and a second byte, said first byte comprises
bits identifying the destination node and said second byte comprising bits identifying the source
node, and wherein said MSOH comprises a third byte comprising at least one Source Node
Identification Extension bit, at least one Destination Node Identification Extension bit and at
least one bit indicating a change of the information in said at least one of said first, second and
third byte.

18. (Currently Amended) The method of communicating between stations using a
~~transmission frame~~ according to claim 17, wherein said Source Node Identification Extension
portion and said Destination Node Identification Extension portion, each comprise two bits and
said information change portion has four bits.

19. (Currently Amended) The method of communicating between stations ~~using a transmission frame~~ according to claim 17, wherein both said Source Node Identification Extension portion and said Destination Node Identification Extension portion have three bits and said indicating an information change portion has two bits.

20. (Currently Amended) The method of communicating between stations ~~using a transmission frame~~ according to claim 18, wherein said Source Node Identification Extension portion has fifth and sixth bits of the third byte, said Destination Node Identification Extension portion has subsequent two bits and said information change portion has first four bits.

21. (Currently Amended) The method of communicating between stations ~~using a transmission frame~~ according to claim 19, wherein said Source Node Identification Extension portion has third, fourth and fifth bits of the third byte, said Destination Node Identification Extension portion has subsequent three bits and said information change portion has first two bits.

22. (Currently Amended) The method of communicating between stations ~~using a transmission frame~~ according to claim 17, wherein the third byte is located at 9th row, 9th column of first STM-1 of the frame.

23. (Currently Amended) ~~The~~ A method of communicating in a network comprising ~~using a transmission frame~~:

producing a said transmission frame; and

transmitting said produced transmission frame with a transmitter,

wherein use of a third byte of the frame to manage in an optimized manner information contained in a first and a second byte of the frame, and wherein said third byte comprises at least one Source Node Identification Extension bit, at least one Destination Node Identification Extension bit and at least one bit indicating a change of information in said at least one of first, second and third byte.